

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1-19 (Cancelled)

20. (Currently Amended) A method comprising:

issuing an instruction, wherein said instruction includes a hint field, a base field and an offset field;

forming an address to access data in a cache, wherein said address is formed by using information contained in said offset and base fields; and

prefetching said data, when unavailable in said cache, in accordance with hint information contained in said hint field, wherein said hint information indicates an expected use of said data and specifies a destination for said data, and said hint information is independent of said address.

21. (Previously Presented) The method of claim 20 wherein said address is a virtual address.

22. (Previously Presented) The method of claim 20 wherein said hint information indicates said data is expected to be not reused extensively and directs said data to a certain way destination in said cache.

23. (Previously Presented) The method of claim 20 wherein said hint information indicates said data is expected to be reused extensively and directs said data to a certain way destination in said cache.

24. (Previously Presented) The method of claim 20 wherein said hint information directs said data to (a) a first way destination when said data is expected to be not

reused extensively, and (b) a second way destination when said data is expected to be reused extensively.

25. (Previously Presented) The method of claim 20 wherein said hint information directs said data to (a) a first way destination when said data is expected to be loaded but not reused extensively or said data is expected to be stored or modified but not reused extensively, and (b) a second way destination when said data is expected to be loaded and reused extensively or said data is expected to be stored or modified and reused extensively.

26. (Currently Amended) A method comprising:
issuing an instruction, wherein said instruction includes a hint field, a base field and an index field;

forming an address to access data in a cache, wherein said address is formed by using information contained in said index and base fields; and

prefetching said data, when unavailable in said cache, in accordance with hint information contained in said hint field, wherein said hint information indicates an expected use of said data and specifies a destination for said data, and said hint information is independent of said address.

27. (Previously Presented) The method of claim 26 wherein said address is a virtual address.

28. (Previously Presented) The method of claim 26 wherein said hint information indicates said data is expected to be not reused extensively and directs said data to a certain way destination in said cache.

29. (Previously Presented) The method of claim 26 wherein said hint information indicates said data is expected to be reused extensively and directs said data to a certain way destination in said cache.

30. (Previously Presented) The method of claim 26 wherein said hint

information directs said data to (a) a first way destination when said data is expected to be not reused extensively, and (b) a second way destination when said data is expected to be reused extensively.

31. (Previously Presented) The method of claim 26 wherein said hint

information directs said data to (a) a first way destination when said data is expected to be loaded but not reused extensively or said data is expected to be stored or modified but not reused extensively, and (b) a second way destination when data is expected to be loaded and reused extensively or said data is expected to be stored or modified and reused extensively.
